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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/021,108      | 10/29/2001  | Gregory S. Graham    | 01G&G1              | 8953             |

7590 11/21/2003

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| EXAMINER |
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MULLINS, BURTON S

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| ART UNIT | PAPER NUMBER |
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2834

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                           |  |
|------------------------------|--------------------------------------|-------------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/021,108 | <b>Applicant(s)</b><br>GRAHAM, GREGORY S. |  |
|                              | <b>Examiner</b><br>Burton S. Mullins | <b>Art Unit</b><br>2834                   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-10 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Angele (US 3,209,187). Angele teaches an induction coil comprising a plurality of tubular members each formed by respective outer and inner conductive layers 12 and 14 (Fig.2), each of said tubular members further comprising a plurality of elongate, parallel, electrically conductive strips (outer layer 12, inner layer 14, Fig.2), each of said strips having a strip length, a strip width and a strip thickness (Figs.1-3), each of said parallel electrically conductive strips being separated from adjacent parallel strips by a gap 26 having a gap width (Fig.2), wherein said gap width is less than said strip thickness (Fig.2), and end connector conductors 20/22 interconnect the conductors 12 in the outer layer forming a first tubular member with the conductors 14 in the inner layer forming a second tubular member (c.3, lines 22-35; Fig.1). Regarding claim 6, as seen in Fig.2, the electrically conductive strips are substantially rectangular in cross-section (c.3, line 12).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a

person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angele.

Angele does not teach explicitly that the gap width is less than 1 millimeter. However, this would have been obvious to one having ordinary skill since Angele suggests that the number and size of the conductors (and hence, the width of the gap 26) in the armature may vary according to the desired voltage and torque (c.3, lines 48-53); and because the particular size of the gap would be an engineering design matter well within the capability of the printed circuit techniques used to form the conductors (c.3, lines 2-21). Neither does the particular width less than 1 millimeter produce a new and unexpected result which is different in kind and not merely degree from the results of Angele, i.e. variations in voltage and torque. In re Aller, 105 USPQ 233 (CCPA 1955).

#### ***Response to Arguments***

5. Applicant's arguments filed 23 July 2003 have been fully considered but they are not persuasive.

Regarding the rejection of claim 4, applicant argues Angele does not teach "a plurality of concentric tubular members". This is not persuasive since Angele's inner and outer layers of conductors 12/14 formed on the hollow cylinder base 11 and separated by adhesive fills 26 (Fig.2) each comprise a "tubular member", just as applicant's slotted metallic sheet 10 comprises a "tubular member" (see specification p.5-6, Fig.1). Further, just as applicant's metallic sheets or "tubular members" 10 and 10' are superpositioned and compressed to form a

composite sheet 30 (Fig.3), Angele's inner and outer tubular members are superpositioned with respect to each other and form a composite sheet shown in Fig.2 of Angele.

Applicant argues Angele does not teach that "said gap width is less than said strip width and said strip thickness". This is not persuasive since Fig.2 of Angele clearly shows that the circumferential or "gap" thickness of adhesive fills 26 is less than both the circumferential thickness and the radial thickness of the conductors 12. MPEP 2125 sets forth that drawings and pictures can anticipate claims if they clearly show the structure which is claimed. In re Mraz, 45 F.2d 1069, 173 USPQ 25 (CCPA 1972). Besides showing the claimed structure in Fig.2, Angele further states that the adhesive fills comprise "*thin* layers of epoxy glue" (emphasis added, c.3, lines 14-15). In other words, the gap thickness is "thin". MPEP 2125 further states that when the reference is a utility patent, it does not matter that the feature shown is unintended or unexplained in the specification. The drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill. In re Aslanian, 590 F.2d 911, 200 USPQ 500 (CCPA 1979). Fig.2 of Angele reasonably discloses a gap thickness 26 less than both the circumferential thickness and the radial thickness of the conductors 12.

Applicant's arguments pertaining to the method by which applicant's conductive strips are separately constructed by, e.g., die cutting, etching or stamping, are irrelevant since these features are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's argument that a "V"-shaped gap would be formed between the conductors 12 in Angele due to uneven dissolution of the metal during etching is not persuasive since

Angele explicitly states (c.3, line 12) and shows (Fig.2) that the conductors are “substantially rectangular.” If it were true that a “V”-shaped gap was formed between the conductors as applicant’s assert, Angele’s conductors 12 would not be described as “substantially rectangular” and the armature would probably not operate properly since parallel portions of the conductors would be shorted out.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or

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proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.



Burton S. Mullins  
Primary Examiner  
Art Unit 2834

bsm  
November 17, 2003